

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Tomohisa ARAI et al.  
Title: CUTTER COMPOSED OF NI-CR ALLOY  
Appl. No.: Unassigned  
Filing Date: 11/12/2004  
Examiner: Unassigned  
Art Unit: Unassigned

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR §1.56**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document, except as noted below, is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

### **TIMING OF THE DISCLOSURE**

The listed documents are being submitted in compliance with 37 CFR §1.97(b), within three (3) months of the date of entry of the national stage as set forth in 37 CFR §1.491.

### **RELEVANCE OF EACH DOCUMENT**

Documents A1-A3 listed on the attached PTO/SB/08 were cited as being relevant during the prosecution of the corresponding International application. Copies of the documents are not being provided since copies should have been provided directly by WIPO under an exchange program between the PTO, the EPO and the JPO. A copy of the International Search Report setting forth the portion of each reference considered relevant by the examiner is attached.

The relevance of document A4 is described in the present specification.

Document A5 discloses a Ni-Cr-Al alloy having a high hardness and corrosion resistance to be used as a material for constituting a pressuring form die. The Ni-Cr-Al alloy comprises 25-60 mass% of Cr, 0.01-10 mass% of Al and substantially balance of Ni. The Ni-Cr-Al alloy further containing 0.01-6 mass% of at least one element selected from the group consisting of Ti, Nb, Ta, Mo, W and Zr. The Ni-Cr-Al alloy member comprises: a Ni-Cr-Al alloy member body having the above composition; and a hardened surface layer formed at least a part of the surface of the Ni-Cr-Al alloy member body. The hardened surface layer has a Vickers hardness of 700 Hv or more. The hardened surface layer is a nitrided layer formed by conducting a nitriding treatment onto the surface of the alloy member body. Further, the hardened surface layer is a coated layer formed by conducting a reactive sputtering operation or ion-plating operation onto the surface of the alloy member body.

Document A6 discloses a Ni-Cr-Al alloy for constituting a mallet and mortar for molding material substances such as powder, grain, gel material, liquid having a high viscosity, or the like into medicine tablets. The Ni-Cr-Al alloy comprises 25-60 mass% of Cr, 1-10 mass% of Al, and substantial balance of Ni. At least molding portions of the mallet and mortar is constituted by the above Ni-Cr-Al alloy. These mallet and mortar for molding material substances are used as the mallet and mortar for a tablet molding machine.

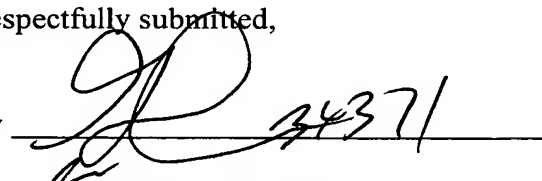
Document A7 discloses a Ni-Cr-Al for constituting a pressuring mold die for molding material substances such as oxide powder or the like containing corrosive ingredients. The Ni-Cr-Al alloy comprises 25-60 mass% of Cr, 0.01-10 mass% of Al, and substantial balance of Ni. The Ni-Cr-Al alloy may further contain 0.8 mass% or less of at least one element selected from the group consisting of Si, C, Mg, Ti and B. These Ni-Cr-Al type alloy members are used, for example, as materials for constituting a pressuring mold die of a tablet molding machine. Namely, the Ni-Cr-Al type alloy members are used as materials for constituting the mallet and the mortar of the tablet molding machine.

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

By



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Date: November 12, 2004

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Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  Date Submitted: November 12, 2004  (use as many sheets as necessary)				<b>Complete if Known</b>	
Application Number		Unassigned <b>10/514196</b>			
Filing Date		11/12/2004			
First Named Inventor		Tomohisa ARAI			
Group Art Unit		Unassigned			
Examiner Name		Unassigned			
Attorney Docket Number		086531-0138			

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	A1	JP	1-156445	A	TOSHIBA CORP.	06-20-1989		
	A2	JP	64-73059	A	SEIKO INSTRUMENTS INC.	03-17-1989		
	A3	JP	59-40902	B2	TOSHIBA CORP.	10-03-1984		
	A4	JP	10-127957	A	NORITAKE CO., LTD. et al	05-19-1998		Abs.
	A5	JP	2002-88431	A	TOSHIBA CORP.	03-27-2002		Abs.
	A6	JP	2001-62595	A	TOSHIBA CORP et al.	03-13-2001		Abs.
	A7	JP	2001-62594	A	TOSHIBA CORP.	03-13-2001		Abs.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.